

### **ABSTRACT**

Methods and compositions for providing glutamine supplementation to a human by orally administering an effective amount of N-acetyl-L-glutamine or a nutritionally acceptable salt thereof. The N-acetyl L-glutamine or a nutritionally acceptable salt thereof can be incorporated into any liquid composition that is suitable for human consumption. Examples of suitable compositions include aqueous solutions such as for use as oral rehydration solutions and liquid nutritional formulas (including enteral formulas, oral formulas, formulas for adults, formulas for children and formulas for infants). The quantity of N-acetyl-L-glutamine or nutritionally acceptable salt thereof can vary widely but typically, these compositions will contain sufficient N-acetyl-L-glutamine or a nutritionally acceptable salt thereof to provide at least 140 mg of total glutamine per kg of body weight per day.